

DEPARTMENT of ENVIRONMENTAL SERVICES  
Water Division - Watershed Management Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: LEDGE POND	Lake Area (ha):	44.56
Town: SUNAPEE	Maximum depth (m):	5.2
County: Sullivan	Mean depth (m):	2.8
River Basin: Connecticut	Volume (m <sup>3</sup> ):	1233000
Latitude: 43°25'55" N	Relative depth:	0.7
Longitude: 72°05'32" W	Shore configuration:	1.44
Elevation (ft): 1308	Areal water load (m/yr):	3.51
Shore length (m): 3400	Flushing rate (yr <sup>-1</sup> ):	1.30
Watershed area (ha): 338.0	P retention coeff.:	0.72
% watershed ponded: 0.0	Lake type:	natural w/dam

BIOLOGICAL:

16 January 2002

30 July 2001

DOM. PHYTOPLANKTON (% TOTAL)	#1	ASTERIONELLA 75%	CHRYSPHAEERELLA 65%
	#2	DINOBRYON 12%	PERIDINIUM 10%
	#3	PERIDINIUM 6%	MALLOMONAS 6%
PHYTOPLANKTON ABUNDANCE (units/mL)			
CHLOROPHYLL-A (µg/L)			1.45
DOM. ZOOPLANKTON (% TOTAL)	#1	KERATELLA 44%	KERATELLA 37%
	#2	CILIATE SPP 29%	ACANTHOCYSTIS 31%
	#3	CALANOID COPEPOD 18%	CALANOID COPEPOD 16%
ROTIFERS/LITER		46	130
MICROCRUSTACEA/LITER		16	78
ZOOPLANKTON ABUNDANCE (#/L)		87	301
VASCULAR PLANT ABUNDANCE			Scat/Common
SECCHI DISK TRANSPARENCY (m)			4.5 Visible on bottom
BOTTOM DISSOLVED OXYGEN (mg/L)		13.5	8.4
BACTERIA (E. coli, #/100 ml)	#1		< 1
	#2		< 1
	#3		

SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None  
Hypolimnion volume (m<sup>3</sup>) : None  
Anoxic volume (m<sup>3</sup>) : None

**CHEMICAL:**

Lake: LEDGE POND  
Town: SUNAPEE

	16 January 2002		30 July 2001		
DEPTH (m)	1.5	3.0	1.0		3.0
pH (units)	6.1	6.1	6.3		6.2
A.N.C. (Alkalinity)	1.8	1.6	1.1		1.1
NITRATE NITROGEN	< 0.05	0.05	< 0.05		< 0.05
TOTAL KJELDAHL NITROGEN	0.30	0.30	0.20		0.30
TOTAL PHOSPHORUS	0.006	<0.005	0.006		0.009
CONDUCTIVITY ( $\mu$ mhos/cm)			16.5		15.7
APPARENT COLOR (cpu)	6	6	14		9
MAGNESIUM			0.27		
CALCIUM			1.2		
SODIUM			0.9		
POTASSIUM			< 0.40		
CHLORIDE	< 3	< 3	< 2		< 2
SULFATE	4	4	4		4
TN : TP	50		33		33
CALCITE SATURATION INDEX			4.9		

All results in mg/L unless indicated otherwise

**TROPHIC CLASSIFICATION: 2001**

D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
**	1	2	0	3	Oligo.

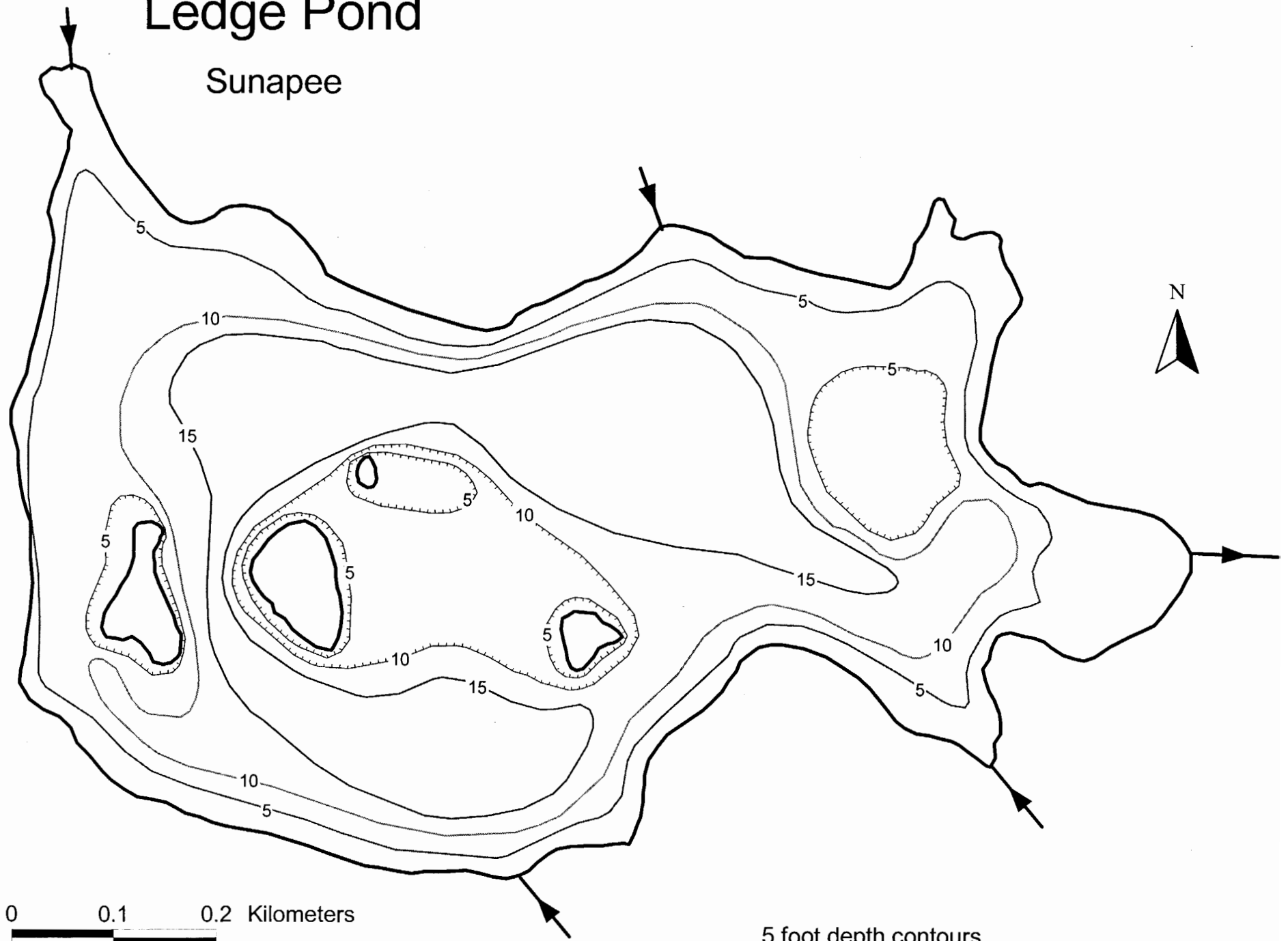
**COMMENTS:**

1. Previously surveyed in 1981; no change in trophic class and little change in water quality.
2. Gas motors are banned from this pond.
3. No public access; launched boat over private property with permission.
4. Good variety of net plankton present; 18 phytoplankton and 9 zooplankton genera observed.

# Ledge Pond

Sunapee

III-124



5 foot depth contours

[illegible]

TOWN: SUNAPEE  
WEATHER: Warm, partly cloudy & breezy

[illegible]

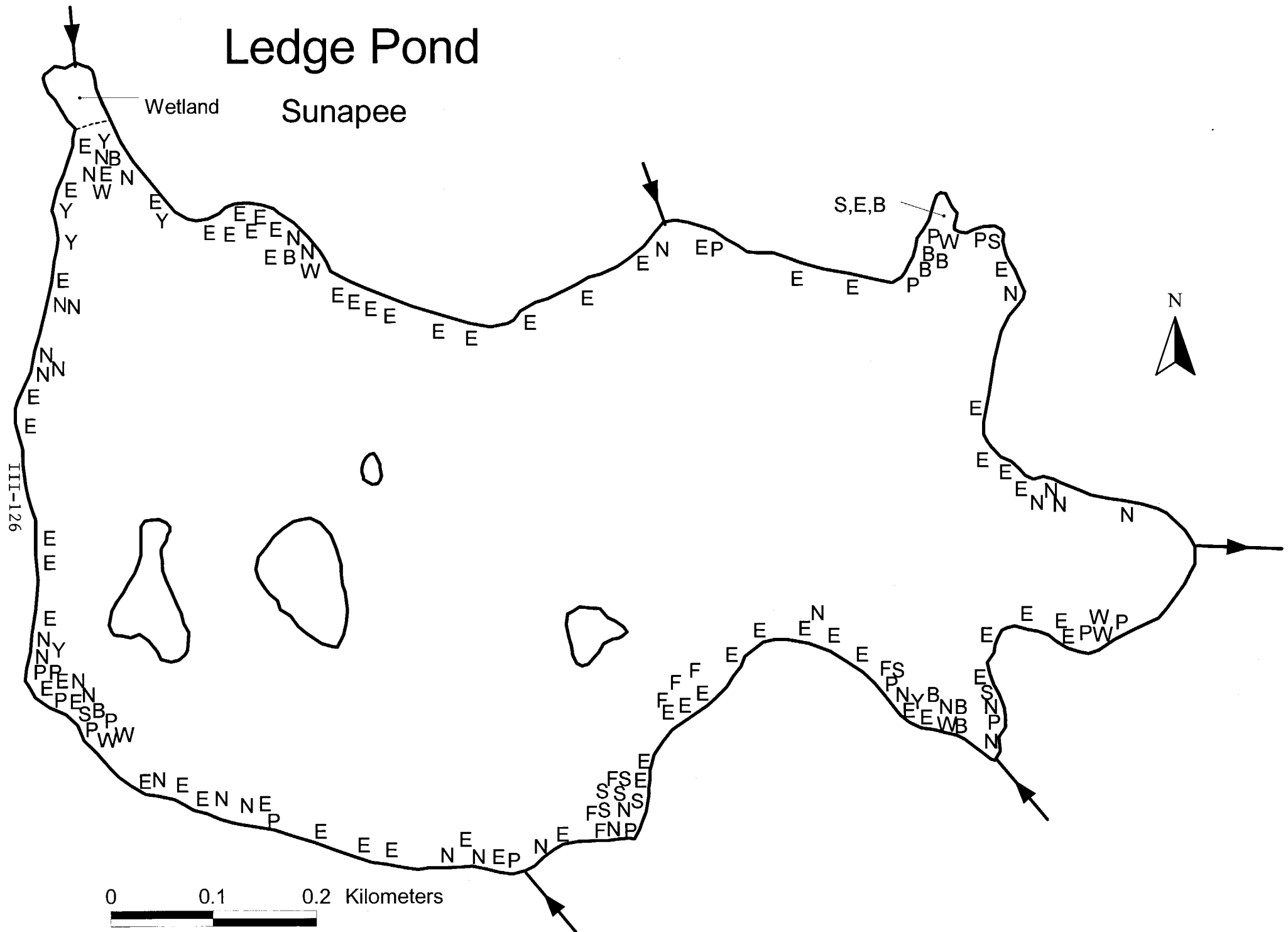
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SECCHI DISK (m):    4.5 VOB      COMMENTS:
BOTTOM DEPTH (m):   4.5
TIME: 1220
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\*Dissolved oxygen values are in mg/L

# Ledge Pond

Sunapee

Wetland



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